

FR101 THRU FR107



Fast Recovery Rectifiers

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.0 Ampere

RoHS Device

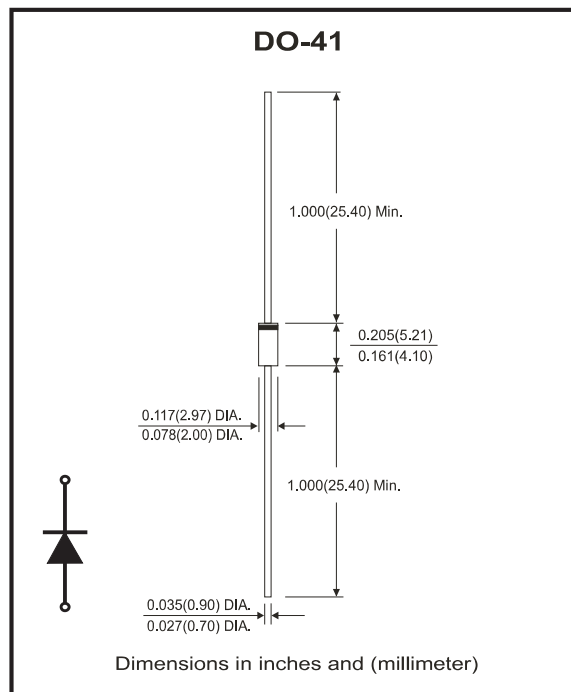
Halogen Free

Features

- Fast switching for high efficiency.
- Diffused junction.
- Low reverse leakage current.
- Low forward voltage drop.
- High current capability.

Mechanical data

- Case: JEDEC DO-41 molded plastic.
- Epoxy: UL 94V-0 rate flame retardant.
- Polarity: Color band denotes cathode.
- Lead: Plated axial lead, solderable per MIL-STD-750, method 2026.
- Mounting position: Any.



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20%

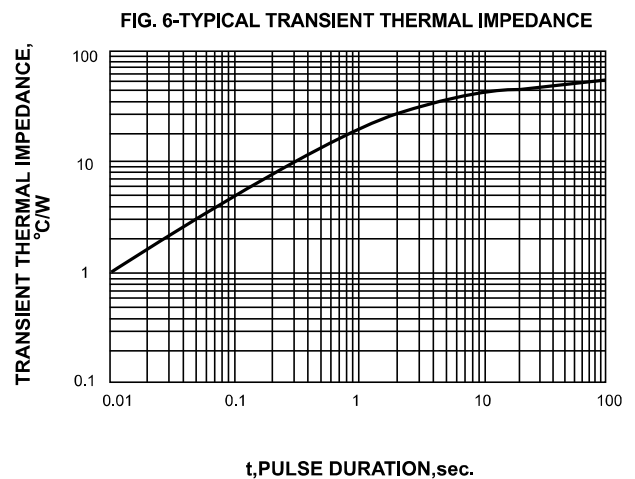
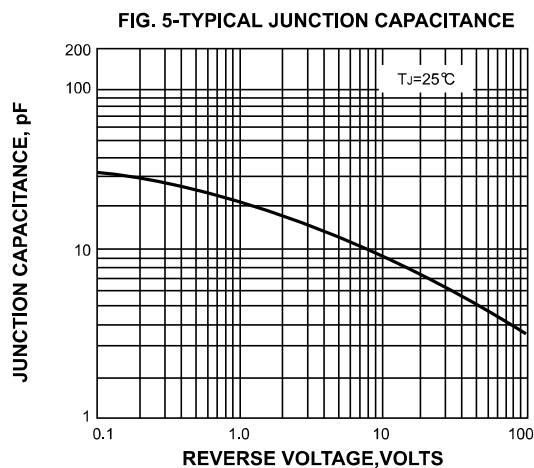
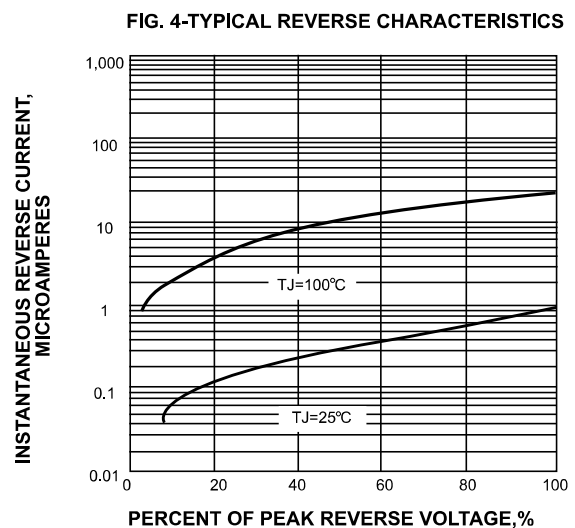
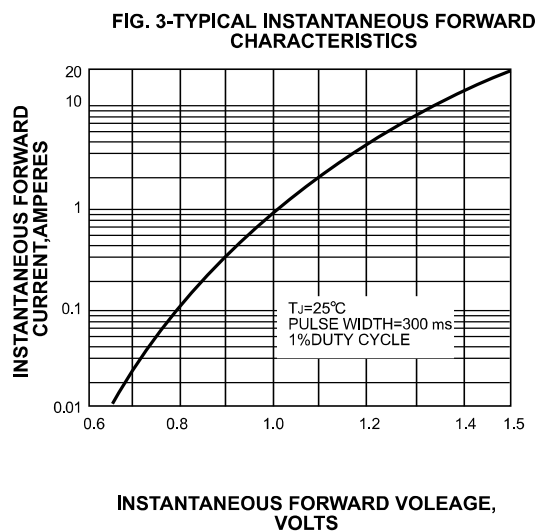
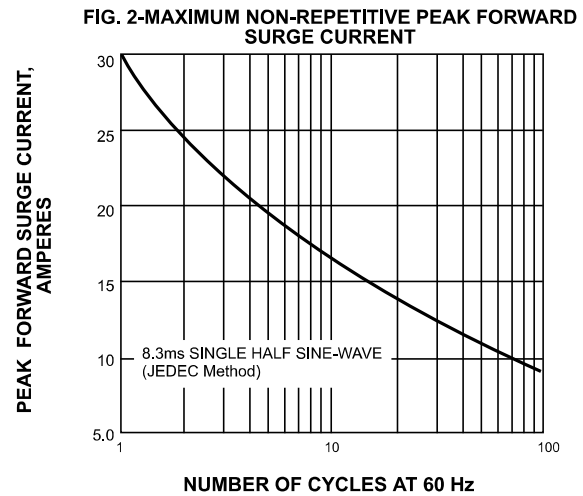
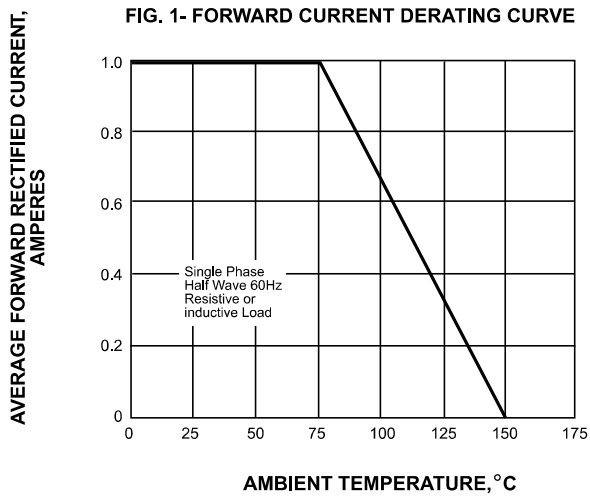
Parameter	Symbols	FR101	FR102	FR103	FR104	FR105	FR106	FR107	Units
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I _{F(AV)}	1							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	30							A
Max. forward voltage at 1A	V _F	1.3							V
Maximum DC reverse current at rated DC blocking voltage	I _R	5 50							μA
Typical junction capacitance (Note 2)	C _j	15							pF
Maximum reverse recovery time (Note 1)	t _{rr}	150				250	500		ns
Typical thermal resistance (Note 3)	R _{θJA}	50							°C/W
Operating and storage temperature range	T _j , T _{stg}	-65 ~ +150							°C

Notes: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.

Company reserves the right to improve product design , functions and reliability without notice.

Rev:1.0

Rating and Characteristic Curves



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Marking Code

Part Number	Marking code	Packaging
FR101	FR101	AMMO
FR102	FR102	AMMO
FR103	FR103	AMMO
FR104	FR104	AMMO
FR105	FR105	AMMO
FR106	FR106	AMMO
FR107	FR107	AMMO
FR101T	FR101	REEL
FR102T	FR102	REEL
FR103T	FR103	REEL
FR104T	FR104	REEL
FR105T	FR105	REEL
FR106T	FR106	REEL
FR107T	FR107	REEL
FR101B	FR101	BULK
FR102B	FR102	BULK
FR103B	FR103	BULK
FR104B	FR104	BULK
FR105B	FR105	BULK
FR106B	FR106	BULK
FR107B	FR107	BULK



XXX = Product type marking code

Note:

1) Suffix code after part number to specify packaging item .

Packaging	Code
AMMO PACK	NA
REEL PACK	T
BULK PACK	B

Standard Packaging

Case Type	AMMO PACK
	BOX (pcs)
DO-41	5,000

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-41	5,000	13

Case Type	BULK PACK
	BOX (pcs)
DO-41	1,000

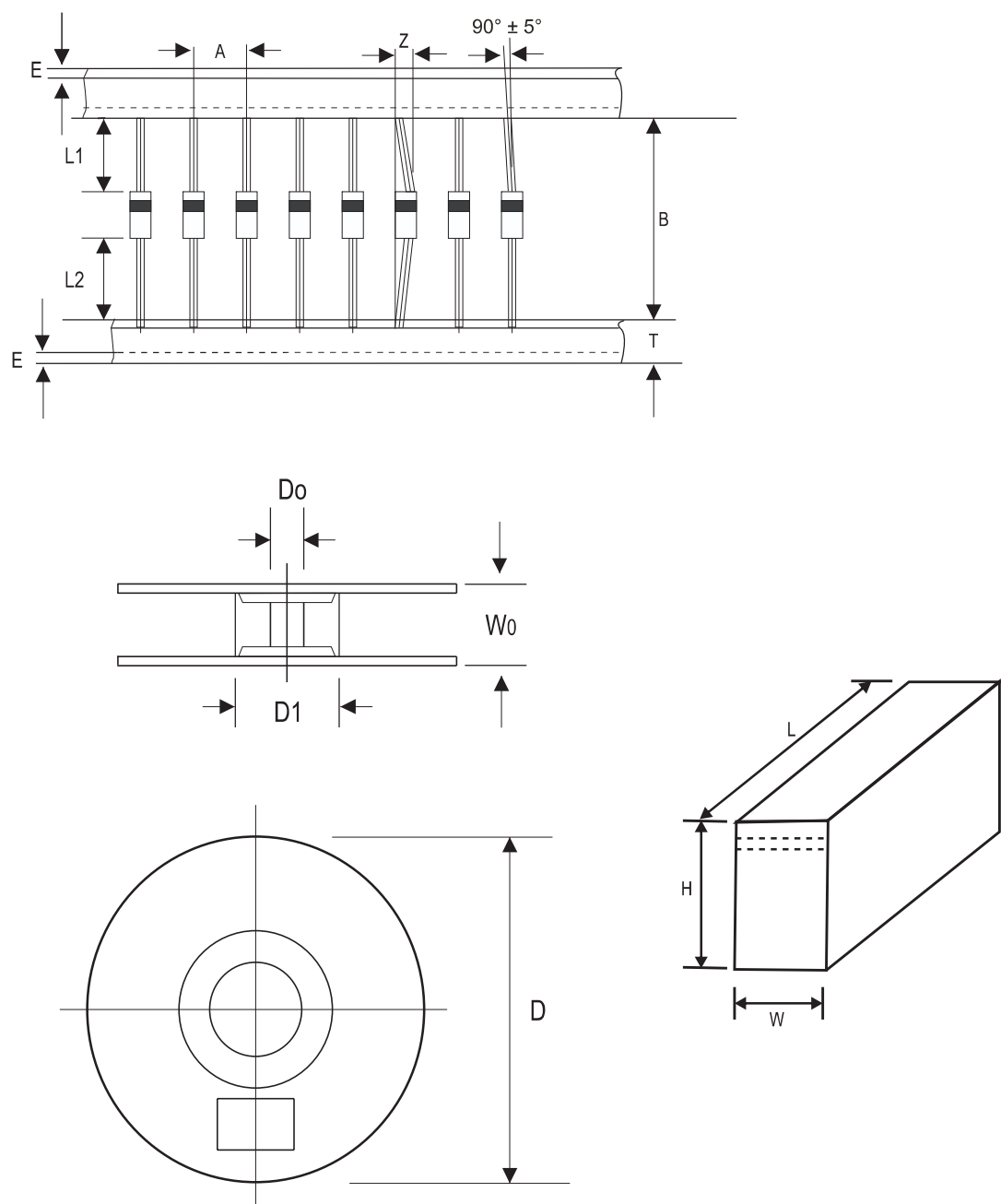
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Taping Specification For Axial Lead Diodes



DO-41	SYMBOL	A	B	Z	T	E	L1-L2
	(mm)	5.00 ± 0.50	52.40 + 1.50 - 0.40	1.20 (max)	6.00 ± 0.40	0.80 (max)	1.00 (max)
	(inch)	0.197 ± 0.020	2.063 + 0.059 - 0.016	0.047 (max)	0.236 ± 0.016	0.031 (max)	0.039 (max)

DO-41	SYMBOL	D1	D0	D	W0	L	W	H
	(mm)	85.70 ± 0.30	16.60 ± 0.40	330.00	79.00 ± 1.00	255.00 ± 5.00	75.00 ± 5.00	150.00 ± 5.00
	(inch)	3.374 ± 0.012	0.654 ± 0.016	12.992	3.110 ± 0.039	10.039 ± 0.197	2.953 ± 0.197	5.906 ± 0.197

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